

1. (Currently Amended) A semiconductor device, comprising:

a trench formed in a substrate;

a diffusion region surrounding the trench to form a buried plate;

a first conductive material formed in the trench, wherein the first conductive material comprises a pillar extending from a bottom of the trench, and wherein the first conductive material makes contact to contacts the buried plate to form a first electrode, said contact being made along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench, and wherein the first conductive material and the buried plate form a first electrode;

a second conductive material disposed in the trench to form a second electrode; and

a node dielectric layer formed between the first electrode and the second electrode.

2 (Original) The semiconductor device as recited in claim 1, wherein the first conductive material is formed into a plurality of pillars extending from the bottom of the trench.

3 (Original) The semiconductor device as recited in claim 2, wherein the plurality of pillars includes the second conductive material disposed between the plurality of pillars.

4 (Original) The semiconductor device as recited in claim 1, wherein the first conductive material includes one of a doped polysilicon and a doped amorphous silicon.

5 (Original) The semiconductor device as recited in claim 1, wherein the second conductive material includes doped amorphous silicon.

6 (Original) The semiconductor device as recited in claim 1, wherein the second conductive material is disposed between the first conductive material and the buried plate.

7 (New) A semiconductor device, comprising:

a trench formed in a substrate;

a diffusion region surrounding the trench to form a buried plate;

a first conductive material formed in the trench, wherein the first conductive material

comprises a pillar extending from a bottom of the trench, wherein the first conductive material contacts the buried plate, and wherein the first conductive material and the buried plate form a first electrode;

a second conductive material disposed in the trench to form a second electrode; and

a node dielectric layer formed between the first electrode and the second electrode.

8 (New) The semiconductor device as recited in claim 7, wherein the first conductive material is formed into a plurality of pillars extending from the bottom trench into the trench.

9 (New) The semiconductor device as recited in claim 8, wherein the plurality of pillars includes the second conductive material disposed between the plurality of pillars.

10 (New) The semiconductor device as recited in claim 7, wherein the first conductive material includes one of a doped polysilicon and a doped amorphous silicon.

11 (New) The semiconductor device as recited in claim 7, wherein the second conductive material includes doped amorphous silicon.

12 (New) The semiconductor device as recited in claim 7, wherein the second conductive material is disposed between the first conductive material and the buried plate.